

STUDIES IN THE EUPATORIEAE (ASTERACEAE). CLXXX.  
THREE NEW CRITONOID SPECIES FROM TROPICAL AMERICA

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The following three new species are described from material that was sent to us for identification.

Asplundianthus sagasteguii R. M. King & H. Robinson sp. nov. Plantae subscandentes laxe ramosae. Caules pallidi teretes puberuli vel pilosi interdum glabrescentes. Folia opposita, petiolis 8-13 mm longis dense sericeis; laminae ovatae 4-7 cm longae et 1.5-2.6 cm latae base late acutae vel subrotundatae margine serratae apice anguste acutae minute acuminatae supra subglabrae vel sparse pilosae in nervis puberulae subtus glandulo-punctatae dense minute tomentellae et pilosulae in nervis sericeae in nervulis pilosulae 2-5 mm supra basem valde trinervatae. Inflorescentiae late dense corymbosae, ramis dense puberulis, ramis ultimis plerumque 2-4 mm longis. Capitula ca. 7 mm alta et 3 mm lata; squamae involucri ca. 25 subimbricatae valde inaequales suborbicularis vel anguste oblongae 1-5 mm longae et plerumque 1.0-1.3 mm latae margine anguste scariosae apice rotundatae extus 4-costatae glabrae. Flores ca. 10-12 in capitulo azulini; corollae 5 mm longae anguste infundibulares, tubis indistinctis ca. 2 mm longis glabris, faucis glabris, lobis triangularibus ca. 0.8 mm longis et 0.4 mm latis laevibus extus sparse glanduliferis; filamenta in parte inferiore 0.1-0.2 mm longa in parte superiore ca. 0.35 mm longa; thecae; appendices antherarum ovato-triangulares ca. 0.35 mm longae et 0.18 mm latae; achaenia 2.3-2.8 mm longa subglabra superne sparse glandulifera et minute setiforma; setae pappi ca. 35 plerumque 3.5-4.0 mm apice angustiores acutae. Grana pollinis ca. 22 $\mu$  in diametro.

TYPE: PERU: Huancabamba: Piura: Canchaque- Minas Turmalina, 2250 m 23 Julio 1975, Sagastegui, Cabanillas, Dios 8273 (Holotype US, Isotype MO).

Asplundianthus sagasteguii is closely related to A. scabrifolius (B. L. Robinson) K. & R. of Peru and A. stuebelii (Hieron.) K. & R. of Ecuador but differs most notably from both by the minute dense almost hyphal blackish tomentum of the leaf undersurface. Asplundianthus scabrifolius differs further by the more

hispid stems and the more scabrous upper surfaces of the leaves, and *A. stuebelii* has more hirsute stems and more setiferous non-glanduliferous achenes.

*Critonia iltisii* R. M. King & H. Robinson, sp. nov.  
Plantae frutescentes usque ad 3 m altae paucem ramosae. Caules fulvescentes vel rubrescentes teretes insicco sulcati glabri. Folia opposita, petiolis ca. 1.5-3.0 cm longis in parte exalatis; laminae ovato-lanceolatae 12-18 cm longae et 3-8 cm latae fere ad tertio inferiore angulatae et trinervatae base anguste cuneatae in petiolis acuminate decurrentes margine superne serratae apice anguste breviter acuminatae supra subglabrae persparse pilosulae in nervis sparse puberulae subtus minute puberulae in axillis nervorum densius puberulae. Inflorescentiae terminales pyramidaliter paniculatae, ramis sparse hirsutis, ramis ultimis tenuibus plerumque 5-8 mm longis subglabris. Capitula cylindrica 13-15 mm longa et 2-3 mm lata; squamae involucri flavo-virides ca. 30 subimbricatae ca. 8-seriatae valde inaequilongae 1-10 mm longae 0.7-1.5 mm latae ovatae vel oblongo-lanceolatae margine distincte anguste scariosae apice anguste rotundatae solum in apice minute fimbriatae extus glabrae 4-6-costatae. Flores ca. 6 in capitulo; corollae albae ca. 7 mm longae tubaeformes plerumque glabrae in lobis extus paucem glanduliferae et puberulae, lobis oblongis ca. 0.8 mm longis et 0.4 mm latis; filamenta in parte superiore 0.15-0.20 mm longa; thecae ca. 1.8 mm longae; appendices antherarum oblongae ca. 0.35 mm longae et 0.23 mm latae; achaenia 5.0-5.5 mm longa lanosa base angustiora; carpopodia parva; setae pappi ca. 50 plerumque 7.5-8.0 mm longae superne leniter latiores. Grana pollinis ca. 23 $\mu$  in diametro minute asperula.

TYPE: GUATEMALA: EL PROGRESO: 6-8 km S of El Progreso. Near Agua Caliente. 610 m. January 4, 1976. Hugh H. Iltis G-72 (Holotype US, Isotypes WIS, MO). Paratype: MEXICO: CHIAPAS: between San Fernando and Chalona, 1/2/49. Ida K. Langman 3832 (PH).

*Critonia iltisii* is distinguished by the angulate margins of the leaves and by the lanate achenes. The pubescence of the achenes would indicate closest relationship to *Critonia eriocarpa* (B. L. Robinson & J. Greenman) K. & R. of Oaxaca but the latter has shorter ovate leafblades without long-cuneate bases and has the involucre only 5-6-seriate lacking the distinctively numerous series of shorter basal bracts.

*Grosvenoria campii* R. M. King & H. Robinson, sp nov.  
Plantae frutescentes vel subarborescentes usque ad 4 m  
altae laxe ramosae. Caules fulvescentes teretes glabri  
in parte minore fistulosi deinde distincte lenticellati-  
feri, internodis plerumque 2-6 cm longis. Folia oppo-  
sita, petiolis 1.0-2.5 mm longis; laminae ellipticae  
plerumque 7-9 cm longae et 2.0-3.3 mm latae base cun-  
catae vix acuminatae margine minute subserrulatae apice  
abrupte breviter anguste acuminatae supra glabrae vel  
glabrescentes nitidae subtus pallidiores glandulo-pun-  
ctatae in nervis et nervulis subtomentellae, nervis  
pinnatis, nervis secundariis utrinque ca. 6 sensim valde  
ascendentibus. Inflorescentiae late dense corymbosae,  
ramis et ramulis sparse tomentellis. Capitula ca. 7 mm  
alta et 3 mm lata in glomerulis paucicapitatis sessilia;  
squamae involucri subimbricatae valde inaequales 1-6 mm  
longae et 0.8-1.0 mm latae, squamae exteriore ovatae  
vel late oblongae obtusae 4-6-costatae margine anguste  
scariosae dense fimbriatae extus glabrae vel glabres-  
centes, squamae interiores anguste oblongae vel lineares  
facile deciduae bicostatae apice breviter acutae vel  
anguste rotundatae breviter fimbriatae. Flores ca. 10-  
15 in capitulo; corollae extus lavandulae intus albae  
5 mm longae leniter infundibulares glabrae, tubis in-  
distinctis 1.5-2.0 mm longis, lobis triangularibus ca.  
0.7 mm longis et 0.4 mm latis; filamenta in parte sup-  
eriore 0.2 mm longa; thecae ca. 1.5 mm longae; appen-  
dices antherarum oblongo-ovatae ca. 0.4 mm longae 0.25  
mm latae obtusae; achaenia 2.0-2.5 mm longa glandulifera,  
carpopodia breviter cylindrica ca. 0.3 mm longa; setae  
pappi ca. 35 plerumque 2.5-3.5 mm longae base dense  
confertae superne tenuiores apice vix vel leniter lat-  
iores. Grana pollinis ca. 25 $\mu$  in diametro.

TYPE: ECUADOR: CHIMBORAZO-CANAR BORDER. near  
Tipococha, 9,800-10,400 ft. July 7, 1945, W. H. Camp  
E-4068 (Holotype NY).

*Grosvenori campii* is intermediate in stem form,  
in leaf pubescence and leaf shape between the two basic  
types previously recognized in the genus and helps to  
prove their relationship. The stem is not fistulose as  
in *G. coelocaulis* (B.L.Robinson) K. & R. of Peru but has  
some hollow areas near the nodes. The leaves are el-  
liptical as in *G. coelocaulis* but has the more pinnate  
venation of *G. rimbachii* (B. L. Robinson) K. & R. and  
*G. hypargyra* (B. L. Robinson) K. & R. of Ecuador. The  
leaves are pubescent below unlike *G. coelocaulis* but  
not densely so as in the two Ecuadorian species.



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NATIONAL HERBARIUM

Prov.	Prov.	Dpto.
Habitat	m.s.m.	
Altitud		
Leg.	A. Sagastegui A.	Fecha
	J. Cabanillas S.	No.
	O. Diaz C.	

Asplundianthus sagasteguii R.M.King & H.Robinson,  
Holotype, United States National Herbarium. Photos by  
Victor E. Krantz, Staff Photographer, National Museum  
of Natural History.



Shrub 1 m. in dense shade.

Perpetua

Forest with Quercus.

Altitude 1,620 m.

July 1976

Collected by R.M. King & H. Robinson

Specimen No. 2781980

Herbarium No. 2781980

Specimen No. 2781980



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July 1976

Critonia iltisii R.M.King & H.Robinson, Holotype,  
United States National Herbarium.



## PLANTS OF ECUADOR

W. H. Camp, No. F 2408

July 20, 1968

Grosvenoria campii R.M. King &amp; H. Robinson

H. Robinson

Tuberous shrub to 4 m. lvs deep green, midribs above; ale pulv. below. Fracts pale green, the inner tipped with pale reddish purple. Tube of corolla pale yellow-green, the lobes internally white. Anthers creamy-white; stigmas white.

PROV. CHOCÓ-BORBOÑA: CASAR BONDE (western escarpment) P. and S. near Tepuia, 2,000-2,500 m., July 1968; and Tipucocha, 2,500-3,000 m., July 1968; near El Tambo, 10,000-11,000 ft. P. 1968-1969; near Poma, 10,000-10,500 ft.

Distributed by the New York Botanical Garden



Grosvenoria campii R.M. King & H. Robinson, Holotype,  
New York Botanical Garden.



Enlargements of heads. Top: Asplundianthus sagasteguii. Middle: Critonia iltisii. Bottom: Grosvenoria campii.